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Applicant: N.P. Van Brunt et al.

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Reissue of: U.S. Patent No. 6,036,662

Title: OSCILLATORY CHEST COMPRESSION DEVICE

CERTIFICATE UNDER 37 CFR 1.8: Express Mailing Label No. EL 920536565 US

I hereby certify that on March 5, 2002, I am depositing this correspondence and all listed attachments with the United States Postal Service "Express Mail Post Office to Addressee," service under 37 C.F.R. § 1.10, addressed to: Commissioner for Patents, Washington, D.C. 20231.

Joyce A. Johnson

INFORMATION DISCLOSURE STATEMENT IN REISSUE APPLICATION

Honorable Commissioner for Patents
Washington, D.C. 20231

Gentlemen:

This document is an Information Disclosure Statement to the above-cited reissue patent application.

Attached hereto is at least one Form PTO-1449 listing documents believed relevant to the subject application. The submission of the following information is not intended, nor should it be construed, to constitute an admission that any patent, article, or other information referred to herein is "prior art" unless specifically designated as such. In accordance with 37 C.F.R. § 1.97(b) the filing of this information shall not be construed to mean that a search has been made or that no other material information may exist. Neither should its submission be construed to indicate that a thorough search should not be conducted by the Examiner.

It is believed that this disclosure complies with the requirements of 37 C.F.R. § 1.56, § 1.97, and § 1.98 and the Manual of Patent Examining Procedures § 707.05(b). If for some reason the Examiner considers otherwise, it is respectfully requested that the undersigned be telephoned so that any deficiencies can be remedied.

This Information Disclosure Statement is being submitted within three months of the filing date of the above-identified reissue application. Therefore, no fee is due for submission of this Information Disclosure Statement, pursuant to 37 C.F.R. § 1.97(b)(2).

A copy of each document is enclosed. Some of the documents may have markings thereon. No significance is meant to be attached to the markings. These documents are not necessarily analogous art. Additionally, the order of the following documents is to be accorded no particular import as the order thereof is completely fortuitous.

It is respectfully requested that these documents be: (1) fully considered by the Patent and Trademark Office during the examination of this reissue application; and (2) represented on any patent which may issue on the application. Applicants respectfully request that copies of the PTO-1449 forms, as considered and initialed by the Examiner, be returned with the next communication.

U.S. Patent No. 1,898,652 to Williams, issued February 21, 1933.

U.S. Patent No. 2,223,570 to McMillin, issued December 3, 1940.

U.S. Patent No. 2,263,844 to Hammond, issued November 25, 1941.

U.S. Patent No. 2,588,192 to Akerman et al., issued March 4, 1952.

U.S. Patent No. 2,626,601 to Riley, issued January 27, 1953.

U.S. Patent No. 2,762,200 to Huxley III, issued September 11, 1956.

U.S. Patent No. 2,762,366 to Huxley III et al., issued September 11, 1956.

U.S. Patent No. 2,762,700 to Brooks, issued September 11, 1956.

U.S. Patent No. 2,779,329 to Huxley III et al., issued January 29, 1957.

U.S. Patent No. 2,780,222 to Polzin et al., issued February 5, 1957.

U.S. Patent No. 2,869,537 to Chu, issued January 20, 1959.

U.S. Patent No. 2,899,955 to Huxley III et al., issued August 18, 1959.

U.S. Patent No. 2,918,917 to Emerson, issued December 29, 1959.

U.S. Patent No. 3,029,743 to Johns, issued April 17, 1962.

U.S. Patent No. 3,043,292 to Mendelson, issued July 10, 1962.

U.S. Patent No. 3,063,444 to Jobst, issued November 13, 1962.

U.S. Patent No. 3,078,842 to Gray, issued February 26, 1963.

U.S. Patent No. 3,120,228 to Huxley III, issued February 4, 1964.

U.S. Patent No. 3,179,106 to Meredith, issued April 20, 1965.

U.S. Patent No. 3,184,672 to Mason et al., issued May 18, 1965.

U.S. Patent No. 3,288,132 to Meredith, issued November 29, 1966.

U.S. Patent No. 3,307,533 to Meredith et al., issued March 7, 1967.

U.S. Patent No. 3,310,050 to Goldfarb, issued March 21, 1967.

U.S. Patent No. 3,327,195 to Mason, issued June 20, 1967.

U.S. Patent No. 3,441,826 to Mason, issued April 29, 1969.

U.S. Patent No. 3,447,055 to Mason, issued May 27, 1969.

U.S. Patent No. 3,536,063 to Werding, issued October 27, 1970.

U.S. Patent No. 3,577,977 to Ritzinger, Jr. et al., issued May 11, 1971.

U.S. Patent No. 3,601,673 to Mason, issued August 24, 1971.

U.S. Patent No. 3,634,874 to Mason, issued January 11, 1972.

U.S. Patent No. 3,678,360 to Minarik et al., issued July 18, 1972.

U.S. Patent No. 3,760,801 to Borgeas, issued September 25, 1973.

U.S. Patent No. 3,783,361 to Mason, issued January 1, 1974.

U.S. Patent No. 3,849,710 to Mason, issued November 19, 1974.

U.S. Patent No. 3,885,554 to Rockwell, Jr., issued May 27, 1975.

U.S. Patent No. 3,896,794 to McGrath, issued July 29, 1975.

U.S. Patent No. 3,993,053 to Grossan, issued November 23, 1976.

U.S. Patent No. 4,120,297 to Rabischong et al., issued October 17, 1978.

U.S. Patent No. 4,133,305 to Steuer, issued January 9, 1979.

U.S. Patent No. 4,135,503 to Romano, issued January 23, 1979.

U.S. Patent No. 4,178,922 to Curlee, issued December 18, 1979.

U.S. Patent No. 4,186,732 to Christoffel, issued February 5, 1980.

U.S. Patent No. 4,239,039 to Thompson, issued December 16, 1980.

U.S. Patent No. 4,481,944 to Bunnell, issued November 13, 1984.

U.S. Patent No. 4,523,579 to Barry, issued June 18, 1985.

U.S. Patent No. 4,538,604 to Usry et al., issued September 3, 1985.

U.S. Patent No. 4,577,626 to Marukawa et al., issued March 25, 1986.

U.S. Patent No. 4,590,925 to Dillon, issued May 27, 1986.

U.S. Patent No. 4,621,621 to Marsalis, issued November 11, 1986.

U.S. Patent No. 4,676,232 to Olsson et al., issued June 30, 1987.

U.S. Patent No. 4,682,588 to Curlee, issued July 28, 1987.

U.S. Patent No. 4,815,452 to Hayek, issued March 28, 1989.

U.S. Patent No. 4,838,263 to Warwick et al., issued June 13, 1989.

U.S. Patent No. 4,928,674 to Halperin et al., issued May 29, 1990.

U.S. Patent No. 4,930,498 to Hayek, issued June 5, 1990.

U.S. Patent No. 4,977,889 to Budd, issued December 18, 1990.

U.S. Patent No. 5,056,505 to Warwick et al., issued October 15, 1991.

U.S. Patent No. 5,188,097 to Hansen, issued February 23, 1993.

U.S. Patent No. 5,222,478 to Scarberry et al., issued June 29, 1993.

U.S. Patent No. 5,235,967 to Arbisi et al., issued August 17, 1993.

U.S. Patent No. 5,269,659 to Hampton et al., issued December 14, 1993.

U.S. Patent No. 5,370,603 to Newman, issued December 6, 1994.

U.S. Patent No. 5,453,081 to Hansen, issued September 26, 1995.

U.S. Patent No. 5,490,820 to Schock et al., issued February 13, 1996.

U.S. Patent No. 5,569,170 to Hansen, issued October 29, 1996.

U.S. Patent No. 5,606,754 to Hand et al., issued March 4, 1997.

U.S. Patent No. 5,769,797 to Van Brunt et al., issued June 23, 1998.

U.S. Patent No. 5,769,800 to Gelfand et al., issued June 23, 1998.

U.S. Patent No. 5,836,751 to De Villiers, issued November 17, 1998.

European Patent Publication No. 0 542 383-A2 by Dye (The Kendall Company), published May 19, 1993.

French Patent No. 2,556,213 to Durocher et al., published June 14, 1985, which describes an autonomous and portable apparatus for artificial respiration. The respirator comprises an electric motor associated with a speed-measuring generator. The electric motor and speed-measuring generator is coupled to an assembly for holding an endless screw, and a muff, which is in turn coupled to a mobile side of a bellows. The fixed side of the bellows is coupled to a collector receiving a separation chamber for volumes of inspired and expired gases. The motor drives the endless screw through gears and a notched belt. The apparatus is controlled by an electronic circuit permitting the regulation of the frequency of respiration, the ratio of inspiration and expiration, and the pause between the phase of inspiration and the phase of expiration.

G.J. Beck, "Chronic Bronchial Asthma and Emphysema: Rehabilitation and Use of Thoracic Vibrocompression," Geriatrics, pp. 139-158 (June 1966).

M. King et al., "Enhanced Tracheal Mucus Clearance with High Frequency Chest Wall Compression," Am. Rev. Respir. Dis. 128: 511-515 (1983).

D. Gross et al., "Peripheral Mucociliary Clearance with High-Frequency Chest Wall Compression," J. Appl. Physiol. 58: 1157-1163 (1985).

E.L. De Weese et al., "Ventilatory Response to High Frequency Airway Oscillation in Humans," J. Appl. Physiol. 58: 1099-1106 (1985).

A. Harf et al., "Nitrogen Washout During Tidal Breathing with Superimposed High-Frequency Chest Wall Oscillation," Am. Rev. Respir. Dis. 132: 350-353 (1985).

P.M.A. Calverley et al., "High Frequency Chest Wall Oscillation: Assistance to Ventilation in Spontaneously Breathing Subjects," Chest 89: 218-223 (1986).

J. Piquet et al., "High Frequency Chest Wall Oscillation in Patients with Chronic Air-Flow Obstruction," Am. Rev. Respir. Dis. 136: 1355-1359 (1987).

H.K. Chang et al., "Mucus Transport by High-Frequency Nonsymmetrical Oscillatory Airflow," J. Appl. Physiol. 65: 1203-1209 (1988).

E.M. Rubin et al., "Effect of Chest Wall Oscillation on Mucus Clearance: Comparison of Two Vibrators," Pediatric Pulmonol. 6: 122-126 (1989).

M. King et al., "Tracheal Mucus Clearance in High-Frequency Oscillation: Effect of Peak Flow Rate Bias," Eur. Respir. J. 3: 6-13 (1990).

L.G. Hansen & W.J. Warwick, "High-Frequency Chest Compression System to Aid in Clearance of Mucus from the Lung," Biomed. Instrument. & Technol. 24: 289-294 (1990).

W.J. Warwick & L.G. Hansen, "The Long-Term Effect of High-Frequency Chest Compression Therapy on Pulmonary Complications of Cystic Fibrosis," Pediatric Pulmonol. 11: 265-271 (1991).

"AARC Clinical Practice Guideline: Postural Drainage Therapy," Respir. Care 36: 1418-1426 (1991).

W.J. Warwick, "Airway Clearance by High Frequency Chest Compression," Pediatric Pulmonol. Suppl. 8: 138-139 (1992).

C. Robinson & L. Hernried, "Evaluation of a High Frequency Chest Compression Device in Cystic Fibrosis," Pediatric Pulmonol. Suppl. 8: 304 (1992).

M. Burnett et al., "Comparative Efficacy of Manual Chest Physiotherapy and a High Frequency Chest Compression Vest in Inpatient Treatment of Cystic Fibrosis," Am. Rev. Respir. Dis. 147: A30 (1993).

J. Whitman et al., "Preliminary Evaluation of High-Frequency Chest Compression for Secretion Clearance in Mechanically Ventilated Patients," Respir. Care 38: 1081-1087 (1993).

R. Arens et al., "Comparison of High Frequency Chest Compression and Conventional Chest Physiotherapy in Hospitalized Patients with Cystic Fibrosis," Am. J. Respir. Crit. Care Med. 150: 1154-1157 (1994).

R.P. Tomkiewicz et al., "Effects of Oscillating Air Flow on the Rheological Properties and Clearability of Mucous Gel Simulants," Biorheology 31: 511-520 (1994).

C. Braggion et al., "Short-Term Effects of Three Chest Physiotherapy Regimens in Patients Hospitalized for Pulmonary Exacerbations of Cystic Fibrosis: A Cross-Over Randomized Study," Pediatric Pulmonol. 19: 16-22 (1995).)

R.L. Jones et al., "Effects of High Frequency Chest Compression on Respiratory System Mechanics in Normal Subjects and Cystic Fibrosis Patients," Can. Respir. J. 2: 40-46 (1995).

B. Dasgupta et al., "Effects of Combined Treatment with rHDNase and Airflow Oscillations on Spinnability of Cystic Fibrosis Sputum in Vitro," Pediatric Pulmonol. 20: 78-82 (1995).

A.S. Wen et al., "Safety of Chest Physiotherapy in Asthma," Am. J. Respir. Crit. Care Med. 153: A77 (1996).

C.L. Wielinski & W.J. Warwick, "Changes in Pulmonary Function Over a 30-Month Period for High-Frequency Vest Users Versus Non-Users in a Cystic Fibrosis Population," Am. J. Respir. Crit. Care Med. 153: A71 (1996).

***C.R. Majaesic et al., "Reduction in Sputum Viscosity Using High Frequency Chest Compressions (HFCC) Compared to Conventional Chest Physiotherapy (CCP)," Pediatric Pulmonol. Suppl. 13: 308 (1996).

M. Castagnino et al., "Safety of High-Frequency Chest Wall Oscillation (HFCWO) in Patients with Respiratory Muscle Weakness," Chest 110: 65S (1996).

M. Mckinnon et al., "Optimal Sputum Cytology Collection Method," Chest 110: 1S (1996).

J. Kluft et al., "A Comparison of Bronchial Drainage Treatments in Cystic Fibrosis," Pediatric Pumonol. 22: 271-274 (1996).

C.M. Oermann et al., "Evaluation of the Safety, Efficacy, and Impact on Quality of Life of the Thairapy Vest and Flutter Compared to Conventional Chest Physical Therapy (CPT) in Patients with Cystic Fibrosis," Am. J. Respir. Crit. Care Med. 155: A638 (1996).

"ThAIRapy Without Compromise," brochure from American Biosystems, Inc., dated May, 1993.

"Artificial Ventilation", in Medical Tribune (date unavailable).

"High-Frequency Chest Wall Oscillation," review from American Biosystems, Inc. (date unavailable).

R. Perry et al., "Effects of Positive End-Expired Pressure on Oscillated Tidal Volume During High Frequency Chest Compression," Chest 110: S65 (1996).

R. Perry et al., "Effects of Positive End-Expiratory Pressure on Oscillated Flow Rate During High-Frequency Chest Compression," Chest 113: 1028-1033 (1998).

K.A. Hardy & B.D. Anderson, "Noninvasive Clearance of Airway Secretions," Respir. Care Clin. N. Am. 2: 323-345 (1996).

D. Klous et al., "Chest Vest & CF: Better Care for Patients," Adv. for Mgrs. of Resp. Care 2: 45-50 (1993).

F. Ohnsorg, "A Cost Analysis of High-Frequency Chest-Wall Oscillation in Cystic Fibrosis," Am. J. Respir. Crit. Care Med. 149: A669 (1994).

L. Hansen et al., "Mucus Transport Mechanisms in Relation to the Effect of High-Frequency Chest Compression on Mucus Clearance," Pediatric Pulmonol. 17: 113-118 (1994).

W. Warwick et al., "High-Frequency Chest Compression Moves Mucus by Means of Sustained Staccato Coughs," Pediatric Pulmonol. Suppl. 6: 283 (1991).

A. Chiappetta et al., "High-Frequency Chest-Wall Oscillation in Hospitalized Non-Cystic Fibrosis Patients," Am. J. Respir. Crit. Care Med. 153: A566 (1994).

M. King et al., "Tracheal Mucus Clearance in High-Frequency Oscillation: Chest Wall vs. Mouth Oscillation," Am. Rev. Respir. Dis. 130: 703-706 (1984).

W. Naviaux et al., "Factors Altering Airflow During High Frequency Chest Wall Compression in Normal and Asthmatic Subjects," Am. J. Respir. Crit. Care Med. 157: A630 (1998).

R.D. Anbar et al., "Short-Term Effect of ThAIRap® Vest on Pulmonary Function of Cystic Fibrosis Patients," Am. J. Respir. Crit. Care Med. 157: A130 (1998).

S. Butler & B. O'Neill, "High-Frequency Chest Compression Therapy: A Case Study," Pediatric Pulmonol. 19: 56-59 (1995).

S. D'Angelo et al., "How Are Patients Using Alternating Pressure Vests for Chest Physiotherapy?," Pediatric Pulmonol. Suppl. 10: 266 , A314 (1994).

S. D'Angelo et al., "Using Objective Data to Monitor and Increase Use of Chest Physiotherapy (CPT) in Patient Education," Pediatric Pulmonol. Suppl. 14: 327-328 (1997).

K.K. Hull & R.H. Warren, "ThAIRapy Vest vs. Conventional Chest Physical Therapy (CPT): Case Report," Respir. Care 36: 1266-1267 (1991).

T.A. Scherer, "Effect of High-Frequency Oral Airway and Chest Wall Oscillation and Conventional Chest Physical Therapy on Expectoration in Patients with Stable Cystic Fibrosis," Chest 113: 1019-1027 (1998).

A. Chiappetta & R. Beckerman, "High-Frequency Chest-Wall Oscillation in Spinal Muscular Atrophy," RT J. Resp. Care Pract. 8: 112-114 (1995).

A. Chiappetta & S. Davis, "Airway Clearance Practices of Respiratory Care Practitioners, Physical Therapists and Physiotherapists from CF Centers," Pediatric Pulmonol. Suppl. 13: A353 (1996).

R. Behnia et al., "Biochemical Effects of High Frequency Vibration Ventilation in Normal Rats," FASEB J. 11: A129 (1997).

M.T. Williams, "Chest Physiotherapy and Cystic Fibrosis: Why Is the Most Effective Form of Treatment Still Unclear?," Chest 106: 1872-1880 (1994).

C.R. Hamm et al., "Ventilation by High Frequency Chest Wall Vibration in Saline Lavaged Rabbits," Pediatr. Res. 27: 305A (1990).

Y. Shabtai et al., "Compartmental Analysis of Gas Transport During High Frequency Vibration Ventilation with Tracheal Bias Flow," Am. Rev. Respir. Dis. 139: A596 (1989).

N. Gavriely & Y. Shabtai, "Gas Exchange by Vibration and Tracheal Bias Flow in Dogs," Am. Rev. Respir. Dis. 135: A54 (1987).

N. Gavriely et al., "Gas Exchange During Combined High and Low Frequency Tidal Volume Ventilation in Dogs," in Progress in Respiration Research, Vol. 21, Pulmonary Gas Exchange: International Symposium, Goettingen, West Germany, July 9-12, 1985 (M. Meyer & J. Piiper, eds., S. Karger, Basel, 1986), pp. 165-168.

Y. Shabtai et al., "Gas Exchange by High Frequency Chest Wall Vibration in Dogs," Isr. J. Med. Sci. 21: 555 (1985).

L.K. Brown et al., "The Effect of High-Frequency Chest Wall Vibration on Ventilatory Drive and Pattern During CO₂ Rebreathing in Man," Am. Rev. Respir. Dis. 131: A129 (1985).

N. Gavriely et al., "Radiographic Visualization of Airway Wall Movement During Oscillatory Flow in Dogs," J. Appl. Physiol. 58: 645-652 (1985).

N. Gavriely et al., "Forced Expiratory Wheezes Are a Manifestation of Flow Limitation in Normal Subjects," Am. Rev. Respir. Dis. 129: A266 (1984).

N. Gavriely et al., "Effects of Superimposed Slow Oscillatory Flow on Carbon Dioxide Removal by Low Tidal Volume High Frequency Ventilation in Dogs," Fed. Proc. 43: 1298 (1984).

H. Bitterman et al., "Gas Exchange Maintained by High Frequency External Vibration," Isr. J. Med. Sci. 19: 98 (1983).

J. Solway et al., "Effect of Resident Gas Composition on Carbon Dioxide Output During High Frequency Ventilation," Fed. Proc. 42: 1350 (1983).

J. Solway et al., "Mechanisms of Gas Transport During High Frequency Ventilation Investigations with Single Breath Nitrogen Washout Curves (SBNW)," Am. Rev. Respir. Dis. 125: 232 (1982).

J. Solway et al., "Distribution of Resistance to Gas Transport Within Airways During High Frequency Ventilation (HFV)," Fed. Proc. 41: 1692 (1982).

N. Gavriely et al., "Mechanical Impedance of Endotracheal Tubes (ETT) During High Frequency Small Tidal Volume Ventilation (HFV)," Fed. Proc. 41: 1627 (1982).

N.H. Dodman et al., "Gas Conductance During High-Frequency Oscillatory Ventilation in Large Animals," Am. J. Vet. Res. 50: 1210-1214 (1989).

A.V. Sivachev, "Calculation of Dynamic Measuring Errors for the Main Parameters of Forced Expiration," Biomed. Eng. 23: 61-65 (1989).

M. Noshiro et al., "Fuzzy and Conventional Control of High-Frequency Ventilation," Med. Biol. Eng. Comput. 32: 377-383 (1994).

K.S. Lee et al., "A Comparison of Underwater Bubble Continuous Positive Airway Pressure with Ventilator-Derived Continuous Positive Airway Pressure in Premature Neonates Ready for Extubation," Biol. Neonate 73: 67-75 (1998).

M. Torry et al., "The Effect of Chest Wall Transcutaneous Electrical Nerve Stimulation on Dyspnoea," Respir. Physiol. 104: 23-28 (1996).

D.M. Eckmann & N. Gavriely, "Chest Vibration Redistributes Intra-Airway CO₂ During Tracheal Insufflation in Ventilatory Failure," Crit. Care Med., 24: 451-457 (1996).

N. Gavriely et al., "Intra-Airway Gas Transport During High-Frequency Chest Vibration with Tracheal Insufflation in Dogs," J. Appl. Physiol., 79: 243-250 (1995).

N. Gavriely et al., "Comparative Study of Intra-Airway Gas Transport by Alternative Modes of Ventilation," J. Appl. Physiol., 79: 1512-1518 (1995).

M.J. Goodwin, "Mechanical Chest Stimulation as a Physiotherapy Aid," Med. Eng. Phys., 16: 267-272 (1994).

M.L. Aitken et al., "Effect of Pulmonary Function of Oral High Frequency Oscillation in Normal and Asthmatic Subjects," Respir. Med., 86: 211-214 (1992).

H.L. Manning et al., "Effect of Chest Wall Vibration on Breathlessness in Normal Subjects," J. Appl. Physiol., 71: 175-181 (1991).

N. Gavriely et al., "Pressure-Flow Relationships of Endotracheal Tubes During High-Frequency Ventilation," J. Appl. Physiol., 59: 3-11 (1985).

J. Solway et al., "Effect of Bias Flow Rate on Gas Transport During High-Frequency Oscillatory Ventilation," Respir. Physiol., 60: 267-276 (1985).

W. Hida et al., "Effect of Local Vibration on Ventilatory Response to Hypercapnia in Normal Subjects," Bull. Eur. Physiopathol. Respir., 23: 227-232 (1987).

N. Gavriely & Y. Shabtai, "Effect of Tracheal Bias Flow on Gas Exchange During High-Frequency Chest Percussion," J. Appl. Physiol., 63: 302-308 (1987).

N. Gavriely & J.P. Butler, "Radial and Longitudinal Compartmental Analysis of Gas Transport During High-Frequency Ventilation," J. Appl. Physiol. 60: 1134-1144 (1986).

Y. Shabtai & N. Gavrieli, "Frequency and Amplitude Effects During High-Frequency Vibration Ventilation in Dogs," J. Appl. Physiol. 66: 1127-1135 (1989).

L. Freitag et al., "Mobilization of Mucus by Airway Oscillations," Acta Anaesthesiol. Scand. 33 Suppl. 90: 93-101 (1989).

N. Gavriely et al., "Forced Expiratory Wheezes Are a Manifestation of Airway Flow Limitation," J. Appl. Physiol. 62: 398-403 (1987).

U.H. Sjostrand et al., "Conventional and High-Frequency Ventilation in Dogs with Bronchopleural Fistula," Crit. Care Med. 13: 191-193 (1985).

M.C. Khoo et al., "Gas Mixing During High-Frequency Ventilation: An Improved Model," J. Appl. Physiol. 57: 493-506 (1984).

T.H. Rossing et al., "Influence of the Endotracheal Tube on CO₂ Transport During High-Frequency Ventilation," Am. Rev. Respir. Dis. 129: 54-57 (1984).

H. Bitterman et al., "Respiration Maintained by Externally Applied Vibration and Tracheal Insufflation in the Cat," Anesth. Analg. 62: 33-38 (1983).

A.C. Pinchak et al., "Beat Frequencies in High-Frequency Positive-Pressure Ventilation," Crit. Care Med. 12: 729-733 (1984).

J. Solway et al., "Intra-Airway Gas Mixing During High-Frequency Ventilation," J. Appl. Physiol. 56: 343-354 (1984).

T.M. Murray & B.J. Rosenstein, "Advances in the Science and Treatment of Cystic Fibrosis" (Duke University Medical Center & Health System, Durham, N.C., 1995), pp. iv, 16, 22.

D. Lemke & N. Torbett, "Cystic Fibrosis and Quality of Life: Airway Clearance Vest Helps Patients Breathe Easier," Advance for Physical Therapists and PT Assistants (November 9, 1998), p. 1.

L. Cherek & N. Torbett, "The Role of Airway Clearance in the Patient with Respiratory Disease," Inside Case Management (November 1998), pp. 8-10.

C. Chambers et al., "Does High-Frequency Chest Compression (HFCC) During Aerosol Therapy Affect Lung Deposition," Am. J. Respir. Crit. Care Med. 157 (Suppl. 3): A131 (1998).

R.D. Anbar, "Compliance with Use of ThAIRapy® Vest by Patients with Cystic Fibrosis," Pediatr. Pulmonol. Suppl. 17: 346, A497 (1998).

R. Castile et al., "Comparison of Three Sputum Clearance Methods in In-Patients with Cystic Fibrosis," Pediatr. Pulmonol. Suppl. 17: 329, A443 (1998).

R.G. Clayton Sr. & M. Donahue, "ThAIRapy Use in 6 to 12 Year Old Children with Cystic Fibrosis," Pediatr. Pulmonol. Suppl. 17: 345, A496 (1998).

J.B. Fink & P.J. Fahey, "A Comparison of Common Bronchial Hygiene Devices and Their Effects on Esophageal Pressure," Chest 114: 293S (1998).

E.M. App et al., "Physiotherapy and Mechanical Breakdown of the Excessive DNA Load in CF Sputum—An Anti-Inflammatory Therapeutic Strategy," Pediatr. Pulmonol. Suppl. 17: 349, A507 (1998).

R. Agostinis et al., "High-Frequency Chest Compression in Combination with Hypertonic Saline Improves Induced Sputum Cytologic Yield" (Abstract Presented at ATS International Conference, May 1995).

R. Jones et al., "Use of High-Frequency Chest Compression Plus Hypertonic Saline Aerosol to Provide Sputum Samples for Diagnosis of Lung Cancer" (Abstract Presented at the Alberta Respiratory Diseases Symposium, Jasper, Alberta, 1995).

F. Rhame et al., "Comparison of High Frequency Chest Compression with Hypertonic Saline for the Induction of Sputum" (Abstract Presented at VII International Conference on AIDS/III STD World Congress, Amsterdam, the Netherlands, November 1992).

N.M. Al-Saady et al., "External High Frequency Oscillation in Normal Subjects and in Patients with Acute Respiratory Failure," Anaesthesia 50: 1031-1035 (1995).

T.E. Dolmage et al., "Chest Wall Oscillation at 1 Hz Reduces Spontaneous Ventilation in Healthy Subjects During Sleep," Chest 110: 128-135 (1996).

D. Isabey & J. Piquet, "The Ventilatory Effect of External Oscillation," Acta Anaesthesiol. Scand. 33 Suppl. 90: 87-92 (1989).

M.C.K. Khoo et al., "Effects of High-Frequency Chest Wall Oscillation on Respiratory Control in Humans," Am. Rev. Respir. Dis. 139: 1223-1230 (1989).

J. Piquet et al., "High Frequency Transthoracic Ventilation Improves Gas Exchange During Experimental Bronchoconstriction in Rabbits," Am. Rev. Respir. Dis. 133: 605-608 (1986).

A. Zidulka et al., "Ventilation by High-Frequency Chest Wall Compression in Dogs with Normal Lungs," Am. Rev. Respir. Dis. 127: 709-713 (1983).

B. Langenderfer, "Alternatives to Percussion and Postural Drainage: A Review of Mucus Clearance Therapies: Percussion and Postural Drainage, Autogenic Drainage, Positive Expiratory Pressure, Flutter Valve, Intrapulmonary Percussive Ventilation, and High-Frequency Chest Compression with the Thairapy Vest," J. Cardiopulmonary Rehabil. 18: 283-289 (1998).

Product Brochure, "Percussionaire® Corporation Presents the Family of Intrapulmonary Percussionators® for the Adminstration of Intrapulmonary Percussive Ventilation (IPV®)," Percussionaire® Corporation, Sandpoint, Idaho, undated.

Product Brochure, "Vortran Medical Technology 1," with "Industry Profile: Vortran Medical Technology 1 Specializes in Innovated Devices," AARC Times (October 1999), and "Percussive NEB™: A Major Advance in Airway Clearance," (March, 2001), Sacramento, California.

Product Brochure, "Coughassist™," J.H. Emerson Co., Cambridge, Massachusetts, undated.

Product Brochure, "EzPAP® Positive Airway Pressure System," DHD Healthcare, Wampsville, New York, February 2001.

Product Brochure, "PARI PEPTM Positive Expiratory Pressure Device," Pari Respiratory Equipment, Inc., Midlothian, Virginia, April 2000.

Product Brochure, "acapella®," DHD Healthcare, Wampsville, New York, February 2001.

Product Brochure, "TheraPEP®," DHD Healthcare, Wampsville, New York, March 2001.

Product Brochure, "TheraPEP®," DHD Healthcare, Canastota, New York, August 26, 1997.

Summary, "High-Frequency Chest Wall Oscillation: Principles and Applications," Advanced Respiratory (formerly American Biosystems, Inc.), August 2001.

Summary, "High-Frequency Chest Wall Oscillation: Research," Advanced Respiratory (formerly American Biosystems, Inc.), October 2001.

Annotated Bibliography, "High-Frequency Chest Wall Oscillation," Advanced Respiratory (formerly American Biosystems, Inc.), April 2001.

Product Brochure, Minarik Corporation, "Motion Control Products, XP Series 1/20 to 1 HP," Minarik Corporation, Glendale, California, undated.

U.S. Serial No. 10/055,849

Docket No. 12653-13

User's Manual, "XP-AC Series", Minarik Corporation, Glendale, California,
April 1996.

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